

OPTIMIZATION OF INNOVATION PROCESSES AT INDUSTRIAL ENTERPRISES UNDER THE CONDITIONS OF THE MARTIAL LAW

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Abstract

In the modern world, industrial enterprises function in the conditions of a globalized market economy and permanent technological evolution. Innovative processes involve the introduction of a new or significantly improved process for the production or delivery of a product. It is the implementation of innovative potential at the tactical level that allows the enterprise to create added value through the creation of a new product, and at the strategic level, it allows the survival of the enterprise due to a high level of competitiveness based on technological superiority. Effective implementation of innovation potential depends on the effectiveness of management and optimization of innovation processes. The military aggression of the Russian Federation against Ukraine and, in connection with this, the imposition of martial law in Ukraine led to the fact that industrial enterprises faced a high level of uncertainty. Under such conditions, the importance of increasing the efficiency of management of innovative processes of an industrial enterprise increases, which makes the topic of the study relevant. The purpose of the study is to develop a methodology for optimizing innovative processes at the enterprise.

The study was implemented on the basis of data that were gathered with an expert survey of the specialists of a separate industrial enterprise regarding the importance of relevant measures to increase the efficiency of the innovative activity of the enterprise. Linear programming method, such as the simplex method, was used to develop the decision-making model.

The result of the study was the formulation of an algorithm for the optimization of innovation processes, which involves seven stages: analysis of the current state of the enterprise's functioning, determination of possible directions for optimizing innovation processes, determination of alternative optimization projects, assessment of the cost of project implementation, construction of a decision-making model regarding the selection of an optimization project, implementation of the selected project, evaluation of the results of project implementation, adjustment of the project of optimization of innovative processes. Due to the proposed algorithm, it becomes possible to more effectively make decisions regarding an adequate set of measures aimed at optimizing innovation processes, and to adjust them in accordance with the specifics of the industry. Several projects aimed at optimizing innovation processes were analyzed, and due to the built model, the optimal combination of optimization projects was selected, namely: migration to cloud storage, creation of a separate subdivision to manage the innovation process, and provision of a security platform to protect sensitive information.

Ensuring the effective implementation of innovative potential becomes critically important in the conditions of martial law, because industrial enterprises due to optimization can achieve: increase profitability, increase productivity, reduce production defects and reduce production time and cost. Due to the optimization of innovation processes, enterprises can at least partially reduce the risks associated with martial law.

Key words: *Optimization, Innovation processes, Industrial enterprises, Martial law.*